

1.	Course	Advanced e-learning systems			
2.	Code	INF-C16			
3.	Study programme	Informatics			
4.	Study programme organized by	Faculty of Computer Science and Engineering			
5.	Cycle	Third - PhD			
6.	Academic year / semester winter/summer/elective	first/second	7.	ECTS credits	7,5
8.	Teacher	Prof. Katerina Zdravkova, PhD, Prof. Ana Madevska Bogdanova, PhD, Prof. Goce Armenski, PhD.			
9.	Prerequisites	None			
10.	Course programme goals (competences): This course offers a profound study of the most recent research and theory in the area of technology enhanced learning (TEL). The focus is towards the comprehension of recent research of learning, knowledge, and pedagogical approaches in the light of technology enhanced learning and teaching. Identification of student needs in TEL environments for learning, as well as student directed learning.				
11.	Course syllabus: Technology supported learning environments, Systems for adaptive learning and knowledge systems, Tools for technology enhanced learning, Interaction in technology enhanced learning, Interactive learning through media, Systems for content management, Student oriented learning, Collaborative learning and training, Edutainment, Developing adaptive learning environments, Tools for knowledge management, Research directed towards models for creating knowledge-based systems, Learning communities, Evaluation of technology enhanced learning initiatives.				
12.	Teaching methods: Classes supported with slide presentations, interactive teaching, teamwork, case studies, invited guest lecturers, presentations of project works, e-learning materials, forums and tutorials				
13.	Total fund of work hours	7,5 ECTS x 30 h = 225 h			
14.	Available hours distribution	45 + 30 + 50 + 50 + 50 = 225			
15.	Teaching activities	15.1.	Theoretical classes	45 h	
		15.2.	Seminars, team work	30 h	
16.	Other activities	16.1.	Project tasks	50 h	
		16.2.	Individual assignments	50 h	
		16.3.	Homework	50 h	
17.	Grading				
	17.1.	Tests			40 points
	17.2.	Seminar work/ project (presentation: written and oral)			50 points
	17.3.	Active participation			10 points
18.	Grading criteria (points/grade)		to 59 points		5 (five) (F)
			from 60 to 68 points		6 (six) (E)
			from 69 to 76 points		7 (seven) (D)

		from 77 to 84 points	8 (eight) (C)
		from 85 to 92 points	9 (nine) (B)
		from 93 to 100 points	10 (ten) (A)
19.	Conditions for attending the final exam	Successful completion of activities 15.1 and 15.2	
20.	Language	Macedonian or English	
21.	Quality assessment	Internal evaluation and student pools	

22.	Literature				
	Compulsory				
	No.	Author	Title	Publisher	Year
	1.	Michael J. Jacobson, Peter Reimann (editors)	Design for Learning Environments of the Future, International Perspectives from the Learning Sciences	Springer, 1 st Edition	2010
22.1.	2.	Nicolas Balacheff, Sten Ludvigsen, Ton de Jong, Ard Lazonder, Sally Barnes (Editors)	Technology - Enhanced Learning: Principles and Products	Springer	2009
	3.	Miltiadis Lytras (Author, Editor), Dragan Gasevic (Editor), Patricia Ordonez De Pablos (Editor), Weihong Huang (Editor)	Technology Enhanced Learning: Best Practices	IGI Publishing	2008
	Additional				
	No.	Author	Title	Publisher	Year
	1.	Various authors	Current publications connected with the area of TEL	Various publishers	
22.2.	2.	Ulrich H. Hoppe, H. Ogata, A. Soller (Editors)	The Role of Technology in CSCL: Studies in Technology Enhanced Collaborative Learning	Springer, 1 st Edition	2007
	3.				